Kentucky Department of Education
Science Adoption 2008-2014

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ISBN - **0022870660**		Publisher - **Macmillan/McGraw-Hill**			
Kentucky Student Edition					
Type - P1	Author - Hackett, and others				
Copyright - 2009	Edition - First	Readability - Modified Dale-Chall 2.1			
Course - Science		Grade(s) - 2			
Teacher Edition ISBN if applicable				**0022871500**	

Overall Recommendation: ☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

*Coverage of the seven big ideas is strong, and contains supplemental material for enrichment.
*Assessment options are varied and comprehensive.
*Technology connections are referenced, but the majority were not available for our review, as the site was still under construction, and the CD roms were not available for review.
*Activities/labs sometimes lacked substance and seemed to be more artistically motivated than scientifically motivated.
*Cross curricular connections were strong and easy to find in the teacher text.
*A variety of free with purchase materials are available. However, schools need to be selective in their materials. Leveled readers are an option in the free with purchase materials, if selected.
*Teacher's edition is well organized and provides for ease of use.

CRITERIA
This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

a)	Structure and Transformation of Matter	☒ Strong	☐ Moderate	☐ Little	☐ N/A
b)	Motion and Forces	☒ Strong	☐ Moderate	☐ Little	☐ N/A
c)	The Earth and the Universe	☒ Strong	☐ Moderate	☐ Little	☐ N/A
d)	Unity and Diversity	☒ Strong	☐ Moderate	☐ Little	☐ N/A
e)	Biological Change	☒ Strong	☐ Moderate	☐ Little	☐ N/A

f) Energy Transformation ☒ Strong ☐ Moderate ☐ Little ☐ N/A

g) Interdependence ☒ Strong ☐ Moderate ☐ Little ☐ N/A

2) **Addresses content-specific enduring understandings from the related Program of Studies standards.** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

3) **Addresses content-specific skills and concepts from the related Program of Studies standards.** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

4) **Content addressed is current, relevant and non-trivial** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) **Provides opportunities for critical thinking/reasoning** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) **Strengths, Weaknesses, Comments:**
- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

*The chapters dealing with interdependence address the big idea concept comprehensively.
*The activities within Big Idea 3, the Earth and the Universe, developing weather concepts and patterns do a great job of having the students collect and analyze data.
*Some higher level concepts are introduced that aren't congruent with Kentucky Standards and may not be age appropriate (i.e. moon phases, chemical changes, earth layers).

B. Functionality & Suitability	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) **Suitability** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) **Content quality** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) **Connections to Literacy** ☒ Strong ☐ Moderate ☐ Little
Note: may apply to either student or teacher editions

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities

- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology ☒ Strong ☐ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners ☒ Strong ☐ Moderate ☐ Little

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
  Note: may apply only to teacher edition

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*Literacy connections are strong, with many writing connections (i.e. writing a recipe, making concept books, etc.). Reading skills are emphasized as students are asked to sequence, use graphic organizers, and read articles and various types of text.
*Poems are provided that relate to concepts.
*Key vocabulary with pictures can be found at the beginning of each chapter.
*Leveled readers are referenced in the Teacher Edition, but were available as a choice for gratis materials.
*Technology appears to be very strong with this program, but the CD Roms are only available as a choice for gratis materials.
*Technology gratis materials include an interactive learning adventures program in Spanish and English, as well as a pupil edition on audio cd. Other cd resources were referenced, but were not available for our review.
*Support for Diverse Learners includes scaffolded ESL/ELL suggestions embedded in the teacher edition.
*Differentiation suggestions are provided for re-teaching and extension.
*Online site was not yet available, as the site was still under construction.

C. Supports Inquiry and Skill Development	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

1) Promotes Inquiry, research and Application of Learning ☐ Strong ☒ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating

findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development ☐ Strong ☒ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

*Many investigations are heavily focused in artistic representations. Many involve paper and art media rather than live science materials.
*Lab activity books are available only as a choice for gratis materials.
*Students are asked to make models and record, organize and analyze data.

D. Supports Best Practices of Teaching and Learning	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Engages Students ☒ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated
  Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction ☒ Strong ☐ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

*Text is engaging and contains Kentucky Connections.
*Many opportunities are incorporated for students to gather data and utilize graphic organizers.
*This basal includes entry level assessments, formative, and summative assessments. Intervention suggestions accompany formative assessments. A test generator is mentioned as available on CD-ROM. Online summaries, quizzes and even assessments over the science in motion animations are listed, but were not available for our review.

E. Has an Organization/ Format that Supports Learning and Teaching	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Organizational Quality ☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) ☐ Strong ☒ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*A unit planner page at the beginning of each unit simplifies planning and provides fast track suggestions to streamline instruction if time is limited.
*Multiple forms of media are listed as resources, although the online site is still under construction and the CD-ROM materials did not arrive for review.
*A glossary with photographs is included at the end of the book.
*Graphics and page layout are appealing and appropriate for the age level.

*A Kentucky Teacher's Supplement that highlights the Kentucky sections of the student text is the only essential component beyond the student and teacher text.

F. Has available Ancillary/ Gratis Materials *Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F*	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

*Manipulative kits are available as ancillary materials, and include live material coupons. Many other materials in the kit are things that could be purchased at common locations.
*Science songs are available on CD, as well as science picture cards.
*A teacher's guide to leveled readers is available as ancillary materials.
*Free with purchase materials include school to home activities, KCCT prep, assessment materials, large illustrated vocabulary cards, key concept cards, and leveled cards, among other things.